

**VOLTAGE CONTROLLED OSCILLATORS WITH  
SELECTABLE OSCILLATION FREQUENCIES AND METHODS FOR  
ADJUSTING THE SAME**

**ABSTRACT OF THE DISCLOSURE**

5 Voltage controlled oscillators include an amplifier that generates an oscillation  
output signal having an oscillation frequency based on an applied inductance and  
capacitance. An inductor coupled to the amplifier applies the inductance. A switched  
capacitor circuit includes a plurality of switches and capacitors selectably coupled to  
the amplifier through respective ones of the switches. A switched varactor circuit  
10 includes a plurality of switches and varactors selectably coupled to the amplifier  
through respective ones of the switches. The capacitances of the varactors are  
responsive to an applied control voltage. A control circuit is configured to select ones  
of the switches of the capacitor circuit and of the varactor circuit and to provide a  
selected control voltage to the varactor circuit to apply a desired capacitance to the  
15 amplifier.

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